



## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PWO051425	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. PCT/US2005/012131	International filing date (day/month/year) 08.04.2005	Priority date (day/month/year) 08.04.2004
International Patent Classification (IPC) or national classification and IPC INV. B65D5/46 B65D5/50 B65D5/14 B65D71/00		
Applicant MEADWESTVACO PACKAGING SYSTEMS LLC et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 5 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand  08.02.2006	Date of completion of this report  30.06.2006	
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Vesterholm, M  Telephone No. +49 89 2399-2541 	

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/US2005/012131

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on
- ☒ the international application in the language in which it was filed
  - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3(a) and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4(a))
    - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1, 4-15	as originally filed
2, 3	filed with telefax on 22.03.2006

**Claims, Numbers**

1-9	received on 14.06.2006 with letter of 07.06.2006
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**Drawings, Sheets**

1/27-5/27, 7/27-27/27	as originally filed
6/27	filed with telefax on 22.03.2006

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* *If item 4 applies, some or all of these sheets may be marked "superseded."*

**INTERNATIONAL PRELIMINARY REPORT  
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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 6

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*).

☒ no international search report has been established for the said claims Nos. 6

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13*ter*.1(a) or (b) and 13*ter*.2.

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions, and such tables were not available to the International Preliminary Examining Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-5, 7-9
	No: Claims	
Inventive step (IS)	Yes: Claims	1-5, 7-9
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-5,7-9
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**Re Item III.**

1. The search does not cover the subject-matter of independent claim 6. Therefore, no opinion concerning novelty, inventive step or industrial application is given.

**Re Item V.**

Reference is made to the following document:

D1: WO 01/76957 A (C.G. PAXTON LTD; BUCKLEY, ROBERT, JAMES) 18  
October 2001

2. INDEPENDENT CLAIM 1

- 2.1 Document D1, which is considered to represent the most relevant state of the art, discloses (cf. Fig. 1 and 2, and page 2, line 30 - page 3, line 28) a carton from which the subject-matter of claim 1 differs in that a third ply is provided either on the container or the closure.

The subject-matter of claim 1 is therefore novel (Article 33(2) PCT).

The problem to be solved by the present invention may therefore be regarded as to strengthen the handle.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) because the prior art does not give any indication of a handle comprising the combination of features as defined in claim 1.

- 2.2 Independent claim 7 contains the same inventive features as claim 1. The subject-matter of claim 7 involves therefore respectively an inventive step in the sense of Article 33(3) PCT.
3. Claims 2 - 5, 8 and 9 are dependent on claims 1 and 7 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**Re Item VII.**

**INTERNATIONAL PRELIMINARY  
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(SEPARATE SHEET)**

International application No.

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4. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
5. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.

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According to a first aspect of the invention carton of the type comprising an open top container and a separate top closure, and having at least one reinforced handle structure, each wherein a first ply of each reinforced handle structure is provided by a side wall of the open top container and a second ply of that reinforced handle structure is provided by a handle panel hinged to the separate top closure, characterised in that a third ply of each reinforced handle structure is provided by one of said separate top closure or the open top container.

Preferably the handle panel hinged to the top closure is secured in flat face contact with an inner face of the first ply of the reinforced handle structure.

Additionally the third ply of the reinforced handle structure is secured in flat face contact with an outer face of the first ply.

Preferably the third ply of the reinforced handle structure is hinged to the second ply of reinforced handle structure, wherein a hinged connection between the second ply and the third ply provides a means for aligning the separate top closure with open top container.

Preferably the first ply of the reinforced handle structure is disposed in contacting relationship between the second ply and the third ply of provided by the separate top closure.

A second aspect of the invention at least one of the walls of the open top container has a top flap folded to extend downwardly into the open top container, wherein the separate top closure comprises an engaging tab for engaging the top flap such that the engaging tab is disposed in face contacting relationship between the one wall and the top flap, the arrangement being such that the top closure is locked in a recessed position below the top of the open top container.

A third aspect of the invention a two-part blank for forming a carton of the type comprising an open top container having a separate top closure wherein a first blank is



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erected to form the open top container and a second blank is erected to form the top closure, the set up carton having at least one reinforced handle structure, the arrangement being such that the or each reinforced handle structure is of at least three ply construction, wherein a first ply is provided by the open top container and second ply is provided by the top closure, characterised in that a third ply of each reinforced handle structure is provided by one of said separate top closure or the open top container.

Preferably the first-blank comprises side walls, the first ply of the reinforced handle structure being provided by one of the side walls of the open top container in the set up carton.

Additionally the second blank providing the top closure separate comprises at least one handle panel for forming the second ply of the reinforced handle structure.

#### Brief Description of the Drawings

Exemplary embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings in which;

Figure 1A illustrates a first part of a blank for forming a carton according to a first embodiment of the invention;

Figure 1B illustrates a second part of a blank for forming a carton according to a first embodiment of the invention;

Figure 1C is a perspective view from the front, side and top of a carton constructed from the blanks of Figs. 1A and 1B;

Figure 2A illustrates a first part of a blank for forming a carton according to a second embodiment of the invention;

Figure 2B illustrates a second part of a blank for forming a carton according to a second embodiment of the invention;



Claims

1. A carton of the type comprising an open top container and a separate top closure, and having at least one reinforced handle structure, wherein a first ply of the or each reinforced handle structure is provided by the open top container and a second ply of the or each reinforced handle structure is provided by a handle panel hinged to the separate top closure, characterised in that a third ply of the or each reinforced handle structure is provided by one of said separate top closure or the open top container.
2. In a carton according to claim 1 the handle panel hinged to the top closure is secured in flat face contact with an inner face of the first ply of the reinforced handle structure.
3. In a carton according to claim 1 the third ply of the reinforced handle structure is secured in flat face contact with an outer face of the first ply.
4. In a carton according to claim 1 the third ply of the reinforced handle structure is hinged to the second ply of reinforced handle structure, wherein a hinged connection between the second ply and the third ply provides a means for aligning the separate top closure with open top container.
5. In a carton according to claim 4 wherein the first ply of the reinforced handle structure is disposed in contacting relationship between the second ply and the third ply of provided by the separate top closure.
6. In a carton according to claim 1, wherein at least one of the walls of the open top container has a top flap folded to extend downwardly into the open top container, wherein the separate top closure comprises an

engaging tab for engaging the top flap such that the engaging tab is disposed in face contacting relationship between the one wall and the top flap, the arrangement being such that the top closure is locked in a recessed position below the top of the open top container.

7. A two-part blank for forming a carton of the type comprising an open top container having a separate top closure wherein a first blank is erected to form the open top container and a second blank is erected to form the top closure, the set up carton having at least one reinforced handle structure, the arrangement being such that the or each reinforced handle structure is of at least three ply construction, wherein a first ply is provided by the open top container and second ply is provided by the top closure, characterised in that a third ply of each reinforced handle structure is provided by one of said separate top closure or the open top container.
8. A two-part blank according to claim 7 wherein the first-blank comprises side walls, the first ply of the reinforced handle structure being provided by one of the side walls of the open top container in the set up carton.
9. A two-part blank according to either of claims 7 or 8 wherein the second blank providing the top closure separate comprises at least one handle panel for forming the second ply of the reinforced handle structure.

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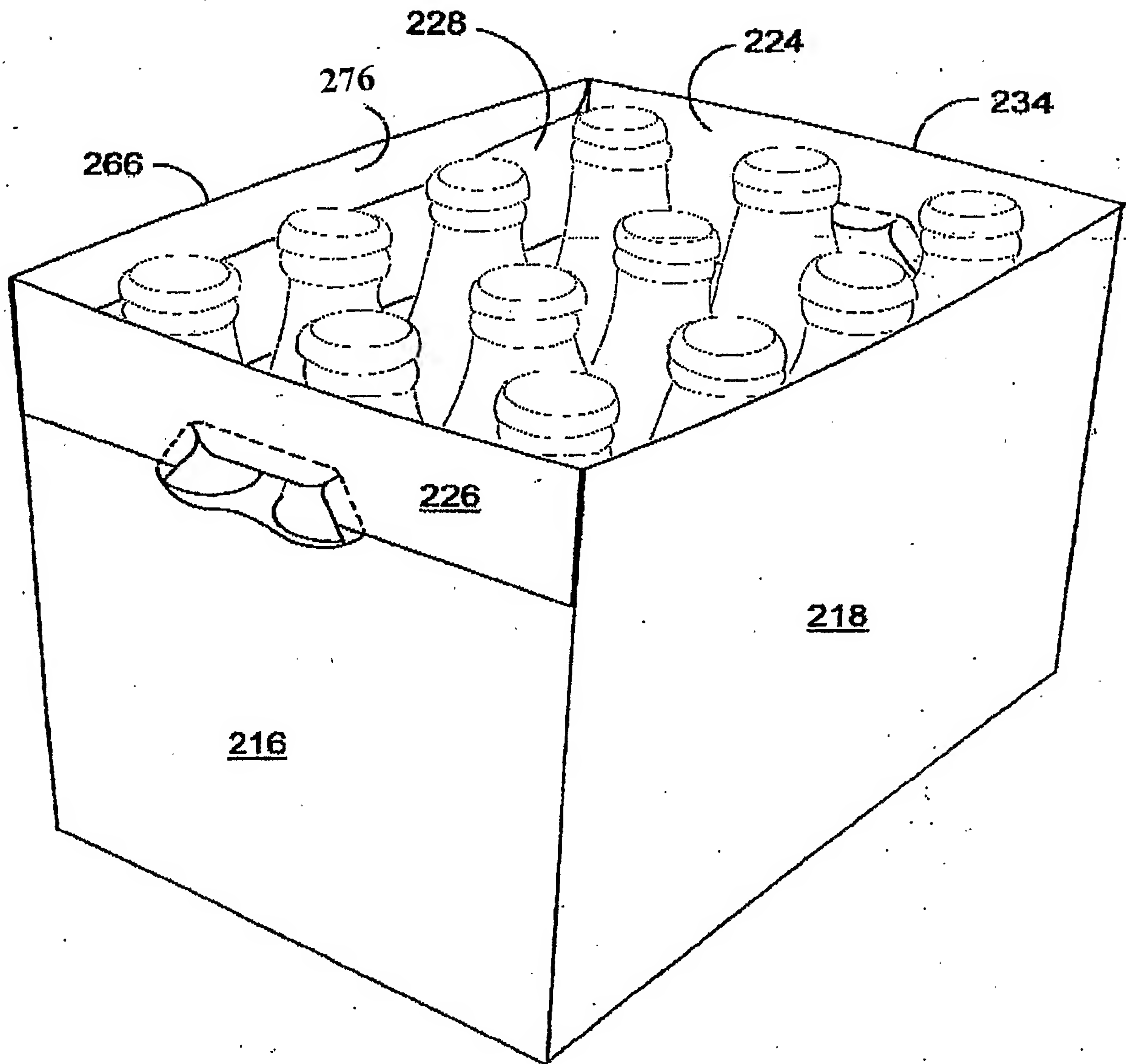


FIGURE 2C